

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An apparatus for analyzing nitropolycyclic aromatic hydrocarbons, comprising:

an auto-sampler to which a methanol water mixture and a sample comprising nitropolycyclic aromatic hydrocarbons are sent;

a separation column downstream of the auto-sampler ~~for receiving~~ configured to receive the methanol water mixture and the sample from the auto-sampler and ~~separating~~ configured to separate the sample comprising nitropolycyclic aromatic hydrocarbons into at least four separate nitropolycyclic aromatic hydrocarbons including 1-nitropyrene, 1,3-dinitropyrene, 1,6-dinitropyrene and 1,8-dinitropyrene;

a reduction column downstream of the separation column ~~for receiving~~ configured to receive the at least four separate nitropolycyclic aromatic hydrocarbons including 1-nitropyrene, 1,3-dinitropyrene, 1,6-dinitropyrene and 1,8-dinitropyrene from the separation column and ~~aminating~~ to aminate the separated nitropolycyclic aromatic hydrocarbons; and

a fluorescence detector.

2. (Withdrawn and Currently Amended) An apparatus for analyzing nitropolycyclic aromatic hydrocarbons, comprising:

an auto-sampler to which a methanol water mixture and a sample

comprising nitropolycyclic aromatic hydrocarbons are sent;

a separation column downstream of the auto-sampler ~~for receiving~~
configured to receive the methanol water mixture and the sample from the
auto-sampler and ~~separating~~ configured to separate the sample containing
nitropolycyclic aromatic hydrocarbons into at least four separate
nitropolycyclic aromatic hydrocarbons including 1-nitropyrene, 1,3-
dinitropyrene, 1,6-dinitropyrene and 1,8-dinitropyrene;

a reduction column downstream of the separation column ~~for receiving~~
configured to receive the at least four separate nitropolycyclic aromatic
hydrocarbons including 1-nitropyrene, 1,3-dinitropyrene, 1,6-dinitropyrene and
1,8-dinitropyrene from the separation column and ~~aminating~~ to aminate the
separated nitropolycyclic aromatic hydrocarbons;

an analysis column ~~for separating~~ configured to separate an interfering
component contained in the sample from the aminated separated
nitropolycyclic aromatic hydrocarbons; and

a fluorescence detector.

3-8. (Canceled)

9. (Previously Presented) The apparatus for analyzing nitropolycyclic
aromatic hydrocarbons according to claim 1, wherein the reduction column is
an alumina/Pt-Rh reduction column.

10-11. (Canceled)

12. (Withdrawn) The apparatus for analyzing nitropolycyclic aromatic hydrocarbons according to claim 2, wherein the reduction column is an alumina/Pt-Rh reduction column.

13-14 (Canceled).

15. (Previously Presented) The apparatus for analyzing nitropolycyclic aromatic hydrocarbons according to claim 1, wherein the separation column is a silica gel/C8 column.

16. (Withdrawn) The apparatus for analyzing nitropolycyclic aromatic hydrocarbons according to claim 2, wherein the separation column is a silica gel/C8 column.

17. (New) The apparatus for analyzing nitropolycyclic aromatic hydrocarbons according to claim 1, further comprising ultrasonic generator provided upstream of the auto-sampler for applying ultrasonic waves to a mixture of diesel particulates and an organic solvent to dissolve soluble organic fractions of the diesel particulates in the organic solvent.

18. (New) The apparatus for analyzing nitropolycyclic aromatic hydrocarbons according to claim 2, further comprising ultrasonic generator provided upstream of the auto-sampler for applying ultrasonic waves to a

mixture of diesel particulates and an organic solvent to dissolve soluble organic fractions of the diesel particulates in the organic solvent.